

US EPA RECORDS CENTER REGION 5



466273

**Field Oversight Summary  
Materials Handling Treatability Study  
American Chemical Services, Inc.**

**July 1997**

BLACK & VEATCH SPECIAL PROJECTS CORP.

MEMORANDUM

USEPA Region 5  
American Chemical Services  
Field Oversight  
Materials Handling Treatability Study

BVSPC Project 71670  
BVSPC File D.3  
August 28, 1997

To: Sheri Bianchin, USEPA

From: Steve Mrkvicka, BVSPC

Enclosed are copies of the field notes and the photographs collected during Phase 2 of the Materials Handling Treatability Study work that was performed by Focus Environmental and Montgomery Watson from July 16 to 18, 1997. The work was performed in accordance with the July 11, 1997, work plan that described the additional activities that were to be done beyond the initial work performed in May 1997.

The objectives of the Phase 2 work included identifying areas containing a mixture of waste debris and contaminated soil that is representative of the material that could be segregated and thermally desorbed; determining the areal extent of the buried drums located in the Offsite Containment Area (OFCA); and collecting samples of the organic waste and contaminated soil for analysis and bench scale testing to assess treatability.

The work was performed by excavating trenches at the suspected perimeter of the drums buried in the OFCA. Additional test pits were excavated at locations believed to be the best places to collect representative soil and waste. Samples were then shipped for analysis.

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SMH

7-16-97

0815 Arrive at the site. Purpose of today's visit is to oversee the Phase 2 materials handling treatability study. The buried drums in the Offsite Containment Area will be areally delineated and additional test pits will be dug. A kick-off meeting was held in the PGCS treatment building to discuss the activities. Midwest and Keldorn will perform the excavation, and Focus will direct the work and collect samples for analysis. MW will perform air monitoring during the work.

0915 Sheri Blanchard, USEPA Chiv Brown, IDEM onsite to discuss the Phase 2 work plan and their comments. We walk to the OFCA and meet Paul and Twila (Focus) and walk/talk about the work.

1000 Go back to PGCS building to discuss comments item by item.

1100 Everything is dismissed and approved, and the work begins.

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1115 The first trench is dug to delineate the drummed area. Start near SA04 and discover drums. Stake is pounded into the ground to delineate the beginning of drums. Take photos 01 & 02 of pit looking E. Crushed drums and dirt. Strong solvent odor. First pit/trench is due east of SA04. Pit is backfilled.

1135 Begin next trench along N side. Large amount of debris mixed with soil and sand. Photo 3 looking NE at trench 2. Trench about 6 feet deep. Dig deeper to about 10 feet. No drums. Backfill trench.

1205 Move to Trench 3 about 50 feet W of SA04. Hit drums at 4 feet. Plastic and metal. Photos 4 and 5 looking NE, drums and soil. Solvent smell. Drums appear to slope downward to N. Encountered liquid material, that is bubbling.

1220 Move to Trench 4. About 100 feet

(30)

west of SA04. Encountered large amount of debris (tires, metal, etc.) mixed with soil. Black-brown dirt. Hit drums and liquid at about 4 feet bgs. Photos 6 and 7 looking E in pot and at the debris pile.

Begin backfilling. Free bleeder-drum carcass hanging from bucket is leaking. Dig further west to about 10 feet and saw another drum. Nothing else further west and deeper, so backfill trench at 1300.

1305 Break for lunch

1400 Back at PGCS bldg.

1445 Start Trench 5. Approximately 100 feet northeast of SA05.

Excavate large amount of debris (tires, carpet, metal) with black stained soil.

1455 Hit drums at about 10 feet. Drum in bucket. Dripping into excavation. Strong petroleum smell. Photo 8 looking NE

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at drum on bucket and drums in the trench. Liquid at approximately 10 feet bgs. Backfill trench.

Photo 9 looking E. Drum hanging from bucket. Dig down to 10 feet. Drum is leaking clear liquid into excavation.

1530 Move to Trench 6. Heading SW from SA01. Begin excavating.

Photo 10 and 11 looking SE. Picture of drums found about 18 inches below grade. Free bleeders, purple and clear. Move eastward.

Photo 12 looking N at drum hanging from bucket. Excavated down to about 8 feet. Left open to collect sample.

1645 Finish up and leave the site.

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SMH 7-17-97

0715 Onsite. Front loader at Trench 6. It will load soil pile from yesterday onto the Viper 120 shaker and collect sample for PCB analysis. Excavator moves to next trench. Sunny, breezy. Excavator working at KPOI, by old Kapia Payne building. Excavated numerous carcasses.

0750 Photo 13 drum pieces removed from KPOI looking south. Strong solvent smell. Large amount of soil mixed in.

Photo 14 looking east into KPOI trench. Layers of crushed drums. Strong smell. Mixed with dark soil.

0820 Begin Trench 7 along S side of SA01. Drums at 12 inches below grade. Drums end at 20 feet south of SA01. Depth of 10 feet found clean sand. Lot of debris mixed with soil. Backfill the trench. Photo 15 looking SE showing the backfilling at 0845.

0855 Move to Trench 8 South along SA02. Large amount of debris mixed with soil. Photos 16 and 17 looking NE into Trench 8. Drums at about 6 feet bgs.

0905 Begin loading PCB soil from Trench 6 onto Viper 120 Screen shaker. Will collect samples for analysis.

Photo 18 weighing loader with dirt to determine amount of soil. Looking NE @ 0920

Photo 19 Loading dirt onto top of screen. Large debris removed from side of machine. Fines are deposited off conveyor belt in front of machine. Looking NE

Photo 20 Fine soil deposited off conveyor belt.

0920 Backfill Trench 8.

0930 Begin Trench 9. About 100 feet NW of SA01. Drums at about 3 feet. Open drums that are leaking into the excavation. Photo 21 shows drums and liquid (clean).

looking SE into the trench. Rubbery material coming from one of the drums. Trench is moving SW along trench path to explore for more drums. Large amount of debris at depth of 6 feet. Crushed small tank @ 10 feet by.

1010 Complete trench 9, backfill.

1030 Front loader finished sampling loading soil into shaker. Backfill Trench 6. Excavator moves over by Trench 8 to look for material at S end of drum area. Material will be collected from this excavation (DD2 location). Operator upgrade to Level B PPE and sampler does Level B PPE to collect liquid sample from SA02.

1115 Begin sampling liquids from SA02 pit. Photo 22 looking E at sampling crew.

1125 Material from KPO1 pit is brought to shaker for screening and sampling.

1140 Compositing soil samples by mixing black soil with less

contaminated looking soil. Paul tells me that he dug to below the drums into the clean soil, and mixed it in with the contaminated material. He did this because Sheri, USEPA, asked that the soil beneath is explored and tested.

1210 People break for lunch.

1315 People back from lunch.

Short meeting to discuss remaining tasks. Back at SA04 to reopen and collect solid and liquid samples at 1400.

1415 Photo 23 looking N at SA04 pit. Large amount of broken drums.

Grey gelatin material in foreground.

1425 Begin sampling liquid and soil from pit.

1455 Complete sampling. Oper crew is backfilling KPO1. They will move to DD2 to screen that material.

1515 Begin screening DD2 material.

1530 Move back to Trench 5 to continue it westward. Dig further

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west and hit drums right away. Mark drum location and move about 150 feet south to next trench, which will be last one on the west side of elevated drum burial area.

1600 Begin moving surface material away before trenching. Begin Trench 10. Large amount of metal and carpet debris, including chain link fencing, tires, metal car bumpers, etc.

1610 Photo 24 looking W at Trench 10 hit drums, no liquids, lot of soil and debris. Drums at about 6 feet deep. Location about 200 feet NW of SA01.

Operator continues to dig deeper to 12-14 feet to look for more drums. Strong solvent odor. No drums.

1635 Backfill excavation.

1650 Begin Trench 11. Located due East of SA01. Hit drum at about 2 feet below ground. Keep hitting drums and moving

(37)

east to find limit. Moved further east with 200 feet of BW next to Colfax Road. Drums exist in low lying area.

1715 Move to Trench 12, east of SA04 about 200 feet, next to UTA management area. I hear there has been an arsenic exceedance at the P&CS, which has been shut down to investigate.

Sample from Trench 6 counts as sample collected from DOI.

Backfill Trench 12  
1800 leave site.

AMH 7-17-97

(38)

SMK

7-18-97

0710 Onsite. Begin Trench 13 located in the middle of the road that leads past the UA management area. Encountered drums at about 2 feet bgs. Approx. 100 feet N of Trench 11.

Paul collect 5-gallon bucket of soil from the excavation that was opened up next to Trench 12 from yesterday.

0805 Move back near SA04 to further delineate drums. Begin Trench 14 at top of drums near UA management area about 75 feet SE of SA04.

Front end loader is screening debris from large spoil pile located at the SE corner of the site. Location

SPO1 and SPO2. Operator indicates strong odor to the material.

0845 Back by SA01 to collect colored material, which may be organic solids. Find green, purple, yellow red.

0915 Spot trenching done in between

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SA01 and SA02. Found drums with black liquid at about 10 feet bgs.

0920 Move to 50 feet SW of SA03.

Drum with black liquid at 3 feet bgs.

1000 After short break, continue Trench 13 further east. Found limit of drums.

1020 Crew begins cleanup.

1100 Leave the site.

SMK 7-18-97





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 2  
 Date: 7/16/97 Time: 1115  
 Photographer: Steve Mrkvicka  
 Description: Looking east at Trench No. 1 located due east of SA03.  
 Crushed drums and dirt in pit. Strong solvent odor.

Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 1  
 Date: 7/16/97 Time: 1115  
 Photographer: Steve Mrkvicka  
 Description: Looking east at Trench No. 1 located due east of SA03.  
 Crushed drums and dirt in pit. Strong solvent odor.





Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 4

Date: 7/16/97 Time: 1205

Photographer: Steve Mrkvicka

Description: Looking northeast at Trench No. 3 located about 50 feet west of SA04. Drums found at 4 feet below ground surface and soil with solvent smell. Depth of drums slope downward toward the north. Encountered liquid that is bubbling.



Site: American Chemical Services, Inc. RD/ERA

Project: 71670

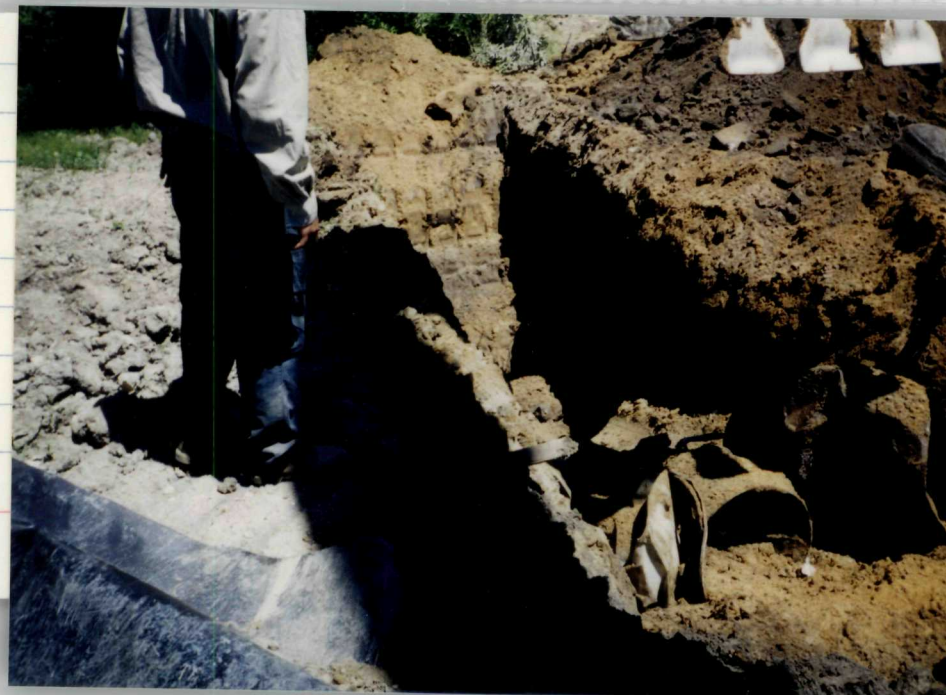
Photo: 3

Date: 7/16/97 Time: 1135

Photographer: Steve Mrkvicka

Description: Looking northeast at Trench No. 2 located north of SA03. Trench is about 6 feet deep. No drums discovered. Large amount of debris mixed with soil and sand.





Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 6

Date: 7/16/97 Time: 1220

Photographer: Steve Mrkvicka

Description: Looking east into Trench No. 4 located about 100 feet west of SA03. Encountered large amount of stained debris (tires, metal, etc.) mixed with soil (black-brown dirt). Hit drums and liquid at about 4 feet below ground surface.

Site: American Chemical Services, Inc. RD/ERA

Project: 71670

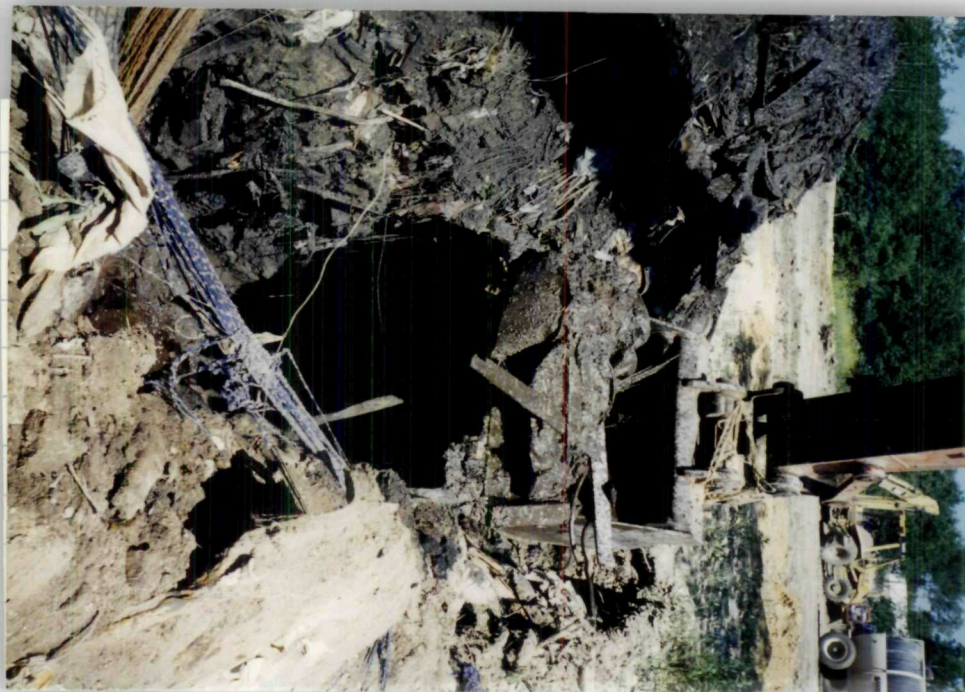
Photo: 5

Date: 7/16/97 Time: 1205

Photographer: Steve Mrkvicka

Description: Looking northeast at Trench No. 3 located about 50 feet west of SA04. Drums found at 4 feet below ground surface and soil with solvent smell. Depth of drums slope downward toward the north. Encountered liquid that is bubbling.





Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 8

Date: 7/16/97 Time: 1455

Photographer: Steve Mrkvicka

Description: Looking northeast at Trench No. 5 located about 100 feet northeast of SA05. Drum hanging from bucket of backhoe. Drums in the trench. Encountered liquid and drums at about 10 feet below ground surface. Strong petroleum smell.

Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 7

Date: 7/16/97 Time: 1220

Photographer: Steve Mrkvicka

Description: Looking east at debris pile from Trench No. 4 located about 100 feet west of SA03. Encountered large amount of stained debris (tires, metal, etc.) mixed with soil (black-brown dirt). Hit drums and liquid at about 4 feet below ground surface.





Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 10

Date: 7/16/97 Time: 1530

Photographer: Steve Mrkvicka

Description: Looking southeast at Trench No. 6 located southwest of SA01. Drums found at about 18 inches below ground surface. Drums are leaking clear and purple liquid.



Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 9

Date: 7/16/97 Time: 1455

Photographer: Steve Mrkvicka

Description: Looking east at Trench No. 5 located about 100 feet northeast of SA05. Drum hanging from bucket of backhoe. Drum is leaking clear liquid into excavation.





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 12  
 Date: 7/16/97 Time: 1530  
 Photographer: Steve Mrkvicka  
 Description: Eastward from Trench No. 6. Looking north at drum hanging from bucket. Excavated to about 8 feet below ground surface.



Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 11  
 Date: 7/16/97 Time: 1530  
 Photographer: Steve Mrkvicka  
 Description: Looking southeast at Trench No. 6 located southwest of SA01. Drums found at about 18 inches below ground surface. Drums are leaking clear and purple liquid.





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 14  
 Date: 7/17/97 Time: 0750  
 Photographer: Steve Mrkvicka  
 Description: Looking east into KP01, which is located near the former Kapica-Pazmey building. Layers of crushed drums. Strong solvent smell. Mixed with dark soil.



Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 13  
 Date: 7/17/97 Time: 0750  
 Photographer: Steve Mrkvicka  
 Description: Looking south at pit KP01, which is located near the former Kapica-Pazmey building. Numerous drum carcasses. Strong solvent smell. Large amount of soil mixed with drums.





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 16  
 Date: 7/17/97 Time: 0855  
 Photographer: Steve Mrkvicka  
 Description: Looking northeast into Trench No. 8. Drums  
 encountered at about 6 feet below ground surface.

Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 15  
 Date: 7/17/97 Time: 0845  
 Photographer: Steve Mrkvicka  
 Description: Looking southeast at backfilling of Trench No. 7 located  
 along southern side of SA01.





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 18  
 Date: 7/17/97 Time: 0920  
 Photographer: Steve Mrkvicka  
 Description: Looking northeast. Front-end loader used to load excavated soil onto the screening machine as part of the materials handling study. Picture shows loader being weighed before loading onto the screen.



Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 17  
 Date: 7/17/97 Time: 0855  
 Photographer: Steve Mrkvicka  
 Description: Looking northeast into Trench No. 8. Drums encountered at about 6 feet below ground surface.





Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 20  
 Date: 7/17/97 Time: 0920  
 Photographer: Steve Mrkvicka  
 Description: Looking northeast. Finer material is deposited off the conveyor belt.



Site: American Chemical Services, Inc. RD/ERA  
 Project: 71670  
 Photo: 19  
 Date: 7/17/97 Time: 0920  
 Photographer: Steve Mrkvicka  
 Description: Looking northeast. Dirt is loaded onto the top of the screen. Large debris is removed from the side of the machine and the finer material is deposited off the conveyor belt.





Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 22

Date: 7/17/97 Time: 1115

Photographer: Steve Mrkvicka

Description: Looking east. Sampling crew is collecting a liquid sample from SA02 pit.



Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 21

Date: 7/17/97 Time:

Photographer: Steve Mrkvicka

Description: Looking southeast into Trench No. 9 located about 100 feet northwest of SA01. Drums are about 3 feet below ground surface. Open drums are leaking clear liquid into the excavation. Rubber material is oozing from one of the drums.





Site: American Chemical Services, Inc. RD/ERA  
Project: 71670

Photo: 24

Date: 7/17/97

Time: 1610

Photographer: Steve Mrkvicka

Description: Looking west at Trench No. 10 located about 200 feet northwest of SA01. Hit drums but no liquid and a lot of soil and debris. Drums are located at about 6 feet below ground surface

Site: American Chemical Services, Inc. RD/ERA

Project: 71670

Photo: 23

Date: 7/17/97

Time: 1415

Photographer: Steve Mrkvicka

Description: Looking north at SA04 pit. Large amount of broken drums. Grey gelatinous material in foreground.